

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
14 July 2005 (14.07.2005)

PCT

(10) International Publication Number
WO 2005/062982 A2

(51) International Patent Classification: Not classified
(21) International Application Number:
PCT/US2004/043679

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(22) International Filing Date:
23 December 2004 (23.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/532,088 23 December 2003 (23.12.2003) US
60/532,089 23 December 2003 (23.12.2003) US
60/540,576 31 January 2004 (31.01.2004) US

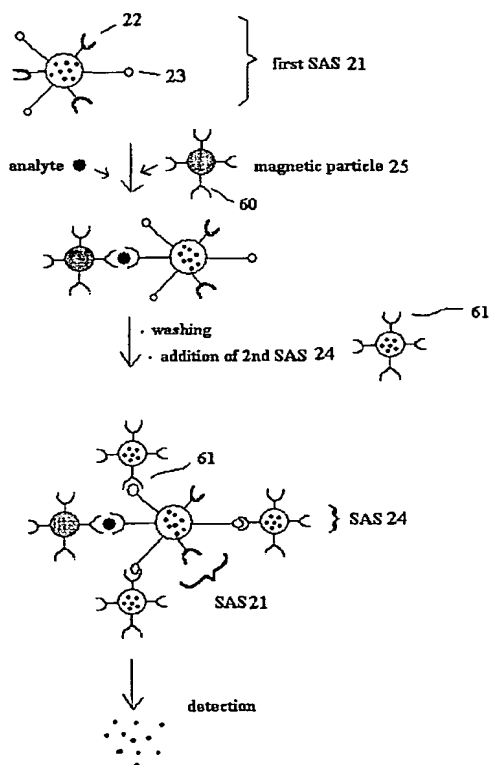
(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

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(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,

[Continued on next page]

(54) Title: SIGNAL AMPLIFICATION METHODS FOR ANALYTE DETECTION



(57) Abstract: The methods and compositions provided herein are based on use of a signal amplification system (SAS) that includes a carrier, typically a particle containing an analyte binding moiety, and multiple copies of a signaling moiety. The signaling moieties may be bound to the same carrier as the analyte binding moiety, or bound to different carriers. In various embodiments, the signaling moiety is physically released from its carrier after the carrier has been bound to the analyte and detected after the release. In various embodiments, the total amount of signal is amplified by releasing multiple species of binding partners from a first carrier and binding the released binding partners to multiple second carriers, each containing multiple signaling moieties. Also provided are carriers that have signalling moieties encapsulated therein or releasably attached thereto, or attached to an inner position of the carrier with respect to the analyte binding moiety, that is attached to an outer position of the carrier.



FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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